

REMARKS

The Examiner indicated that copies of the references cited in the PTO-1449 were not included in the package sent with the application. Copies of the references are enclosed herewith.

Claims 11-21 and 23-61 are presently pending in the present application. Claim 22 has been canceled. Claims 11, 13-14, 16, 23-24, 27, 30, 33-36 and 49 have been amended to more particularly claim the invention. Applicants have included a full set of claims herein for the Examiner's benefit.

The Examiner has rejected claims 13-14, 16, 33 and 48 under 35 U.S.C. 112 as being indefinite. Applicants have amended these claims to more particularly recite the invention. Specifically, the Examiner's recommended language was included into claims 13-14. In claim 16, "a standard ordering" was replaced with "a standard ordered set." Support for this claim language can be found on p. 15, line 20 through p. 16, line 1. In claim 33, the term "instantly" is replaced with "immediately." Support for this claim language can be found on p. 18, line 21 through p. 19, line 1. Finally, claim 11 has been amended to incorporate the antecedent basis necessary for dependent claim 48. Applicants contend that the claims are now in proper definite form and are no longer objectionable.

The Examiner has rejected previously pending claims 11-20, 22-24, 27, 30, 33-36, 44-45, and 61 under U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,544,360 ("Lewak et al."). Applicants contend that the presently pending claims are not anticipated by Lewak et al. and, thus, respectfully traverse the Examiner's rejection.

The present invention provides a method and system for assisting a computer user with the management of electronic documents such as files and e-mail. Specifically, the invention assists a user with the task of categorizing electronic documents for filing within a collection by suggesting one or more categories in which to file an electronic document. As presently claimed, the system uses an automated “classifier” to categorize a particular document so that the suggested categories are identifiable. Also critical is the fact that the classifier, as claimed, is incrementally retrained in response to modifications to the collection.

Lewak et al. discloses a computer file control system for allowing a user to access “computer files and data therein according to user-designated criteria.” (See col. 1, lines 21-26). Specifically, the system, depending on the state that it is in, 1) automatically categorizes a file that has been opened or saved to an uncategorized category and notifies the user of files to be categorized, 2) presents the user with a Categories Window with which to select categories or 3) allows the user to choose a command from a menu to bring up the Categories Window at any time. (See col. 7, line 50 - col. 8., line 5). In each case, the user categorizes the files. In one paragraph, (col. 9, lines 50-55), Lewak et al. suggests that “the process of categorizing can be totally or partially automated.” However, while Lewak simply states: “After a number of files have been categorized, word patterns in categorized files can be correlated to the category descriptions” and “This information can be used to automatically assign (or simply suggest) category descriptions to new and existing uncategorized files,” this generally vague paragraph does not provide sufficient information to teach one skilled in the art the manner in which to automate the process of categorizing files. Certainly, there is no mention or suggestion of the use of a classifier. Much less, Lewak et al. does not teach the use of an incrementally retrained classifier for classification.

Claim 11 has been rewritten to more particularly claim the invention.

Specifically, the limitation of previously pending claim 22 was incorporated therein and claim 22 was canceled. Now, claim 11 includes the step of “classifying, with a classifier, a document to obtain a plurality of most likely categorical labels” and the step of “incrementally retraining the classifier to adapt to modifications of the collection.” These limitations are crucial to the effectiveness of the present invention. Lewak et al. fail to disclose such limitations, as discussed hereinabove. The Examiner, on page 7 of the Office Action, states that “Lewak discloses a method of an FC Manager conditionally categorizing each closed file if not already categorized.” (See col. 8, lines 6-15). This language simply refers to the Lewak system, in the Active state, opening the categories window upon a user’s closing of a file only if the file has not yet been categorized. It does not disclose the use of a classifier to classify the document to facilitate the identification of most likely categorical labels. The Examiner further states that Lewak also discloses a method of an FC Manager, running as a background process, checking the path of a previously saved file during ‘null events’ for categorization (see col. 7, lines 55-67). As discussed hereinabove, this language simply indicates that the Lewak et al. system will, in the Active state, store the path to memory of the file, upon a file being opened or newly saved, and later check to see if the file had been previously categorized. If not, it can be placed in an uncategorized queue for later categorization by the user. Thus, Lewak et al. does not disclose or suggest the step of “incrementally retraining a classifier to adapt to modifications of the collection.” Therefore, claim 11 as presently claimed is allowable over Lewak et al.

Claims 12-21 and 23-61 are similarly allowable in view of Lewak as they include the limitations of claim 11. Furthermore, these dependent claims incorporate additional

limitations which are not disclosed or suggested by Lewak et al. Applicants include some of these additional limitations hereinbelow.

With regard to claim 12, the Examiner states that "Lewak discloses a method whereby a category named E-mail can be defined" Lewak et al. does not disclose, suggest or even relate to the claimed functionality of deriving shortcuts from most likely categorical labels and displaying them to the user.

With regard to claim 13, the Examiner states that "Lewak et al. discloses a method of opening a saved file and invoking an FC manager with a "categorize" command for category selection by the user." (See column 8, lines 1-5). While Lewak et al. discloses a method for user categorization of a saved file, Applicants respectively point out that Lewak does not disclose or suggest the automated system classification of claim 13.

With regard to claim 14, the Examiner states that "Lewak et al. discloses a method whereby upon the category of e-mail selected for a file, the user is given indication of related linked category descriptions." (See column 15, lines 39-51). See Applicants' comments hereinabove with regard to claims 12 and 13.

With regard to claim 15, the Examiner states that "Lewak et al. discloses a method whereby linked category descriptions are indicated to the user by way of a distinctive style, or check mark, or a descriptive dialog box." (See column 15, lines 5-55). The Examiner also states that "Lewak et al. also discloses a method of categorizing an opened file at the point of a first save to disk." (See column 7, lines 55-67). In addition to the lack of disclosure of shortcuts or display buttons in general, while Lewak et al. does disclose the use of a categorization window, as shown in Fig. 5, Lewak does not disclose or suggest that the window is displayed with the document.

With regard to claim 16, the Examiner states that “Lewak et al. discloses a method of a file manager display showing a column file type and category entries in alphabetical order, along with three other columns of categories, each column containing different entries in alphabetical order.” Lewak fails to disclose, in Fig. 5 or otherwise, the step of creating an ordered set of the plurality of most likely categorical labels and displaying them with the document prepended to a standard ordered set of other categorical labels. In other words, there is no disclosure or suggestion in Lewak to provide suggested categories before the actual column lists shown in Fig. 5.

With regard to claim 17, the Examiner states that Lewak discloses a method whereby upon the selection of a categorize button on an open file, an FC manager is run, producing a file manager display showing current categories. Lewak fails to disclose or suggest that the classifying step of the automated classifier occurs substantially simultaneously with the displaying step. This is very different from the disclosed user-initiated classification of Lewak.

With regard to claim 23, the Examiner states that “Lewak discloses a method whereby a user chooses a “categorize” command to recategorize an already categorized file.” Lewak fails to disclose or suggest the retraining step of claim 11 as discussed hereinabove. Furthermore, Lewak fails to disclose or suggest that the retraining step is accomplished in response to the labeling step. The manual recategorization disclosed in Lewak is not equivalent to the automated retraining accomplished in the present invention as claimed.

With regard to claim 24, the Examiner states that “Lewak also discloses a method whereby a file control system retrieves the file path previously saved, and analyzes the saved file for categorization.” As discussed hereinabove, Lewak does not disclose or suggest an automated

retraining step. Furthermore, the Lewak system does not in response to addition data, retrain a classifier. There is no classifier disclosed to retrain.

With regard to claim 27, the same argument applies. Specifically, Lewak fails to disclose or suggest any retraining in response to a deletion of a file.

With regard to claim 30, the Examiner states that "Lewak discloses a method of moving a file to another directory, which impacts the integrity of the identifiers in the FID. In addition, Lewak also discloses a method whereby upon the moving of a file, a search is made to find the file, based upon creation date/time search criteria." Once again, Lewak fails to disclose or suggest that the move data affects an automated retraining of a classifier. Furthermore, the requirement of a search to find a file teaches away from the present invention.

With regard to claims 33-36, Lewak does not disclose or suggest any retraining step, much less when the retraining occurs.

With regard to claim 44, the Examiner states that "Lewak discloses a method whereby an FC manager initializes all data structures involved by reading data from the related data files, as well as previously saved last used values." Lewak does not disclose or suggest the step of training a classifier from scratch or otherwise as cited in claim 44. The same arguments apply to claim 45.

The Examiner has also rejected claims 21, 25-26, 28-29, 31-32, 47-49, 51 and 60 under 35 U.S.C. 103(a) as being unpatentable over Lewak et al. Applicants traverse the Examiner's positions as follows.

With regard to claim 21, the Examiner states that "it would have been obvious to one of ordinary skill in the art to modify Lewak to incorporate a standard list because a "full lists" option is disclosed as an example of inhibiting category search contraction." Lewak does

not disclose or suggest supplying a shortcut list in combination with a full list or standard list so that a user can choose between them. Therefore, because all the limitations of claim 21 are not included in Lewak or the prior art, the obviousness rejection is inappropriate.

With regard to claims 26 and 47, the Examiner states that "it would have been obvious to one of ordinary skill in the art to modify Lewak to incorporate excluded folders." Lewak neither discloses nor suggests the use of excluded folders in a classifier.

With regard to claim 48, the Examiner states that the retraining step is interpreted to mean that the process of updating tables in response to modifications of a collection. As presently recited, claim 11 includes the step of incrementally retraining the classifier to adapt to modifications of the collection. Therefore the retraining step referred to in claim 48 involves the updating of the corpus of knowledge within the classifier. Lewak neither discloses nor suggests any retraining step, much less one in which the classifier is modified after a determined time. The same argument may be applied to claim 49.

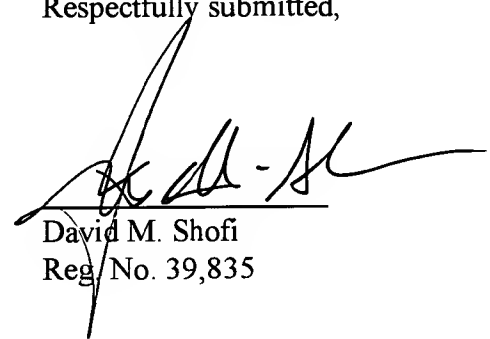
With regard to the remaining dependent claims to which an obviousness rejection has been given by the Examiner, there is no suggestion to combine the references. Specifically, there is no suggestion found in either of the references to combine the Lewak patent with the Netscape publication. Any combination is merely a use of inappropriate hindsight reasoning. Secondly, while the Lang reference discloses the use of TF-IDF techniques, it does so for one particular application, that being filtering news group items. Lang does not apply it to an application such as a classifier of the present invention. The Examiner states that it would have been obvious to one of ordinary skill in the art to apply the TF-IDF related methods of Lang to the methods disclosed by Lewak. However, Lewak, as described hereinabove, does not disclose any classification methods to which the TF-IDF methods are applied in the present invention.

Once again, any combination of references is therefore a result of inappropriate hindsight reasoning.

Therefore, Lewak et al., and the combination of Lewak and the other cited references, fails to disclose all the limitations of any of the pending claims of the present application. In view of the this, favorable consideration and prompt allowance of claims 11-21 and 23-61 are respectfully requested. The Examiner is invited to call Applicants' attorney at 914-945-3247 to discuss any matter regarding this application, if required.

Respectfully submitted,

By:

A handwritten signature in black ink, appearing to read 'D. M. Shofi', is written over a horizontal line.

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